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REMARKS

Claims 1-21 are pending and stand rejected. The Examiner objects to claim 19. Claims 10, 14, 15 and 21 are canceled. Therefore, claims 1-9, 11-13 and 16-20 will be pending after entry of this amendment.

Claims 1, 3, 4, 8, 9, 11, 16, 17, 18, 19 and 20 are amended. Claim 1 is amended to recite means for improving the scanning of the scannable coupon from the electronic display and to improve the form of the claim. Support for the amendment regarding means for improving the scanning of the scannable coupon is found in the written description on page 6, lines 20-23, and page 7, lines 10-21. Claims 3 and 4 are amended to improve the form of the claims. Claim 8 is re-written in independent form substantially in accordance with the originally filed claims 1 and 8. Support for the amendment to claim 9 is found in the written description on page 6, lines 16-30. Support for the amendment to claim 11 is found in the written description on page 6, line 24 to page 7, line 2. Claim 16 is rewritten in independent form substantially in accordance with originally filed claims 14 and 16. Claims 17, 18, and 20 are amended to change the dependency from claim 14 to claim 16. Claim 19 is amended to improve the form of the claim in accordance with the Examiner's objection on page 2 of the Detailed Action. The undersigned believes these amendments do not add new matter.

Rejections Under 35 U.S.C. § 102

Claims 1, 5, 7, 8, and 14-21 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,523,794 by Mankovitz et al. (hereinafter "Mankovitz"). Claims 14, 15, and 21 are canceled, rendering these rejections moot. Claim 1 has been amended to recite means for improving the first scan rate of the scannable coupon from the electronic display. Such means are not disclosed or suggested by Mankovitz and the Applicant believes claim 1 and all claims that depend from claim 1 are allowable.

The Applicant teaches several techniques for improving scanning barcodes from electronic display. In particular, the Applicant teaches techniques for improving the first scan rate and for reducing scanning errors. Mankovitz does not address these problems and does not disclose or suggest the solutions taught by the Applicant.

Regarding claim 7, the Examiner states that the device disclosed in Mankovitz "must inherently provide decryption of data in order for the authorized coupon devices to operate as desired" (Page 3, Detailed Action). The Applicant respectfully traverses the Examiner's

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position. Mankovitz states that the controller decodes the vertical blanking interval (VBI) data, and that the data present in the VBI is further encrypted, Col. 5, lines 45-53 (*emphasis added*). Thus it appears that the controller (Fig. 1A, ref. num. 12) decrypts the data, and not the portable data coupon 10. Furthermore, it is unclear why data from the controller 12 to the portable data coupon 10 would need to be encrypted. Mankovitz states that data is transferred from the controller 12 to the portable data coupon 10 over an infrared (IR) link or a serial interface, Col. 3, lines 49-54. Both of these techniques involve relatively close proximity of the transmitting and receiving devices, and IR or serial interface transmissions between the controller 12 and the portable data coupon 10 would not likely be intercepted by unintended parties. Thus, the Applicant believes claim 7 is not disclosed or suggested by Mankovitz, and is further patentable. The Applicant believes claim 16 is patentable for similar reasons.

Regarding claim 8, the Examiner states that Mankovitz teaches that different coupon formats can be displayed. Mankovitz appears to be talking about displaying coupons in alphanumeric format or barcode format. Claim 8, as amended, recites, among other elements, that the computer-readable program stored in the memory of the configurable portable electronic device includes instructions for converting a coupon from a first barcode format to a second barcode format. This embodiment of the invention and the advantages obtained are discussed on page 5, lines 5-21 of the written description. No such configurable portable electronic device is disclosed or suggested by Mankovitz. Therefore, the Applicant believes claim 8 is patentable.

Rejections under 35 U.S.C. § 103

Claims 2-4, 6, 9, 10, 12 and 13 are rejected as being unpatentable over Mankovitz. Claim 10 is canceled, rendering its rejection moot. The Examiner states that Mankovitz teaches an LCD display and that it would have been obvious to one of ordinary skill at the time of the invention to have provided any type of well-known LCD display having sufficient pixel resolution and sizing, as well as known contrast features, in order to provide a display showing a barcode capable of being scanned. The Examiner further states that the plural values for each of the various characteristics suggests a lack of criticality regarding the claimed values, and that Mankovitz would have been motivated to routinely experiment with the same characteristics in the display design so that the barcodes displayed can be operatively scanned. The Applicant respectfully traverses the Examiner's position.

Far from suggesting a lack of criticality for the particular values recited, the Applicant

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teaches that there are various techniques for achieving reduced scanning errors, in particular, improving the first scan rate. For example, the Applicant teaches that scanning is improved with a particular nominal minimum dimension and interpixel spacing, by maintaining the contrast between scans, by providing a certain level of contrast, and by providing a strobe rate that is sufficiently fast, for example. The Applicant also teaches that the LCDs used in mobile telephones and similar devices are intended to be viewed by the human eye, which is not as sensitive to these characteristics of the display.

While the LCD display disclosed in Mankovitz may be operatively scanned, Mankovitz does not teach how to improve the display for improved scanning, or even recognize that a display intended for viewing by a human eye might be improved for scanning.

Claim 2 recites an electronic display with a nominal minimum dimension of less than about 13 mils and an interpixel spacing of less than about 1.3 mils. The Applicant teaches that LCD displays used in mobile telephones often have displays with relatively coarse resolution because the information to be displayed usually consists of alphanumeric characteristics adaptable to block pixel presentation (Page 6, lines 1-9). This specific combination of minimum dimension and interpixel spacing for improved scanning is not taught or suggested by the cited art.

Similarly, the Applicant teaches that the first scan rate can be improved by including a contrast-enhancing coating on the electronic display, as recited in claim 3 and discussed in the written description on page 7, lines 10-21. The contrast-enhancing coating can comprise an anti-reflective coating, as recited in claim 4. Again, the prior art does not teach or suggest including a contrast-enhancing coating, and the mere fortuity that barcodes displayed on the LCD of Mankovitz might be operatively scanned does not suggest either of these specific solutions taught by the Applicant for improving the first scan rate on a configurable portable electronic device.

Claim 12 recites the configurable portable electronic device of claim 1 wherein the display is a dot-matrix liquid crystal display having pixels capable of maintaining a contrast ratio of at least 1:4 between a light portion of a barcode displayed on the electronic display between a first strobe signal and a second strobe signal to the pixels. The Applicant recognizes and teaches that strobing displays on portable electronic devices are often intended for the human eye, and that the eye usually compensates for darkness variation arising from strobing (Page 6, lines 16-23). The Applicant also recognizes and teaches that strobing can interfere with the scanning

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operation because the pixel value might change during scanning and teaches a specific combination of characteristics for avoiding this problem. This specific combination of characteristics is not taught or suggested in the cited references; therefore, the Applicant believes claim 12 is further patentable.

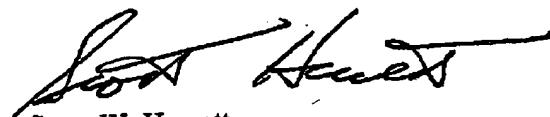
Claim 11 recites that the configurable portable electronic device of claim 1 has a liquid crystal display with sufficient persistence to maintain contrast for electronic scanning of the scannable coupon shown on the liquid crystal display. The Applicant believes that claim 11 is further allowable substantially for the reasons given above in support of claim 12.

CONCLUSION

The Applicant submits that all claims are now in condition for allowance. Favorable reconsideration and timely issuance of a Notice of Allowance are respectfully requested.

Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawings, then it is respectfully asked that such changes be made by Examiner's Amendment if the Examiner feels this would facilitate passage of the case to issuance. If the Examiner believes a telephone conference would expedite prosecution of this application, he is invited to telephone the undersigned at (707) 591-0789.

Respectfully Submitted



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